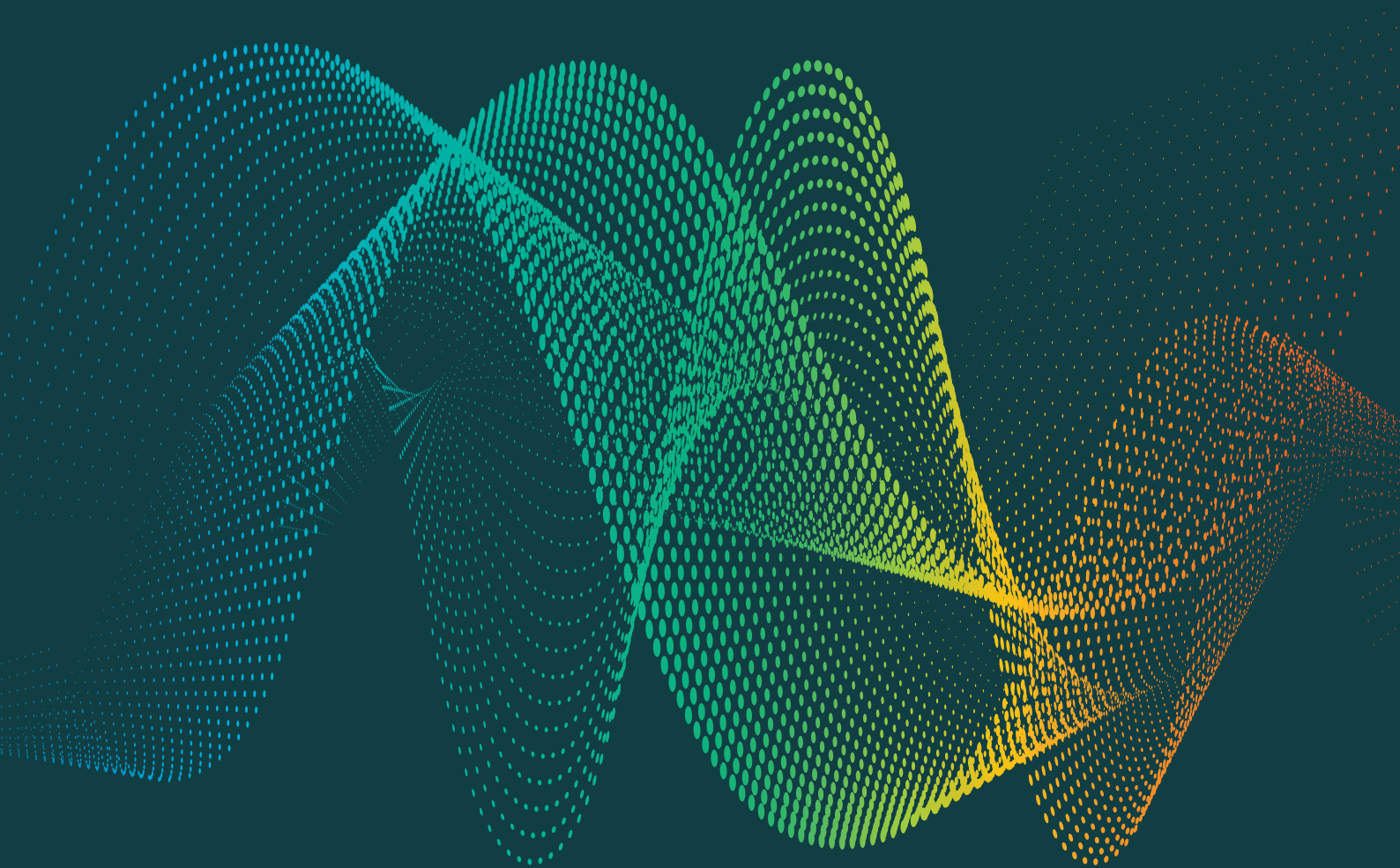




POST-COVID
RECOVERY
ENERGY MONITOR

Alternative Metrics for Real-Time Assessment of Energy Demand



Oil Demand Outlooks in Times of a Market Dislocation:

Non-Traditional Metrics as a Bellwether for 5 Million
Barrels Missing from Transportation Fuels Demand

Introduction:

- As every year, final and aggregate 1Q21 demand data will not be available until May, but mobility trackers provide leading indicators of the trajectory of demand for transportation fuels, a critical sector for oil demand which was disproportionately hit by COVID-related restrictions.
- Global oil demand fell by approximately 25 percent in “black April” to levels last seen in 2002. The ensuing recovery has been equally spectacular, but the ‘last mile’ has been slow and uneven. In times of market dislocation, the combination of these trackers with other metrics can help model transportation demand, improving transparency and timeliness of data for better supply and investment strategies.
- This report assesses gasoline and diesel demand’s recovery through 1Q21 using JODI Oil Database, Google’s Community Mobility Tracker and Oxford’s COVID-19 Government Response Tracker. The IEF combined data from JODI, Google’s Community Mobility Tracker, and Oxford’s COVID-19 Government Response Tracker to assess gasoline and diesel demand’s recovery.
- In China, in the absence of public real-time mobility data or data on CO2 emissions, we have used Oxford’s COVID-19 Government Response “Stringency” Tracker to estimate mobility.
- For now, vaccinations are a weaker metric to extrapolate transportation fuels demand, and therefore oil demand recovery. We will continue monitoring these different metrics during the remainder of 2021, particularly in relation to Ramadan and summer vacation travel patterns.

Key Findings:

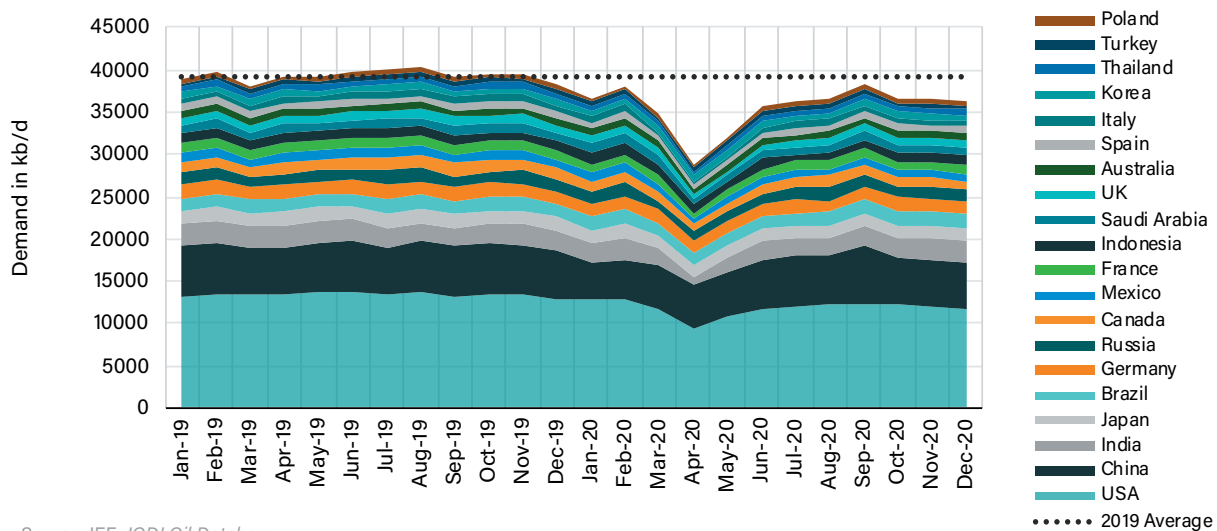
- Gasoline and diesel demand rebounded to ~93% of pre- COVID levels in March 2021 from ~87% in January 2021. ~35% of the volume gains in those two months were driven by the US and India.
- Mobility in many European countries lags 20-40% below the January 2020 baseline.
- In China, Oxford’s COVID-19 Government Response “Stringency” Tracker fell during March 2021 below summer 2020 levels. This implies a serious pick-up in transportation demand, after passenger traffic declined 45% last year.
- The lion’s share of missing demand is jet fuel, and it is expected to remain at 5.5-5.7 mb/d during the first half of this year, vs 7.9 mb/d in 2019.
- The increasing disparity between regions and countries in terms of effectiveness of government response means that domestic and regional flights are picking up only slowly.
- Transportation fuels demand is still down 5.2 mb/d (2.8 mb/d for gasoline and diesel and 2.4 mb/d for jet fuel) below pre-COVID levels and could reach pre-COVID levels in 2022 on aggregate.

JODI data shows gasoline and diesel demand in January near 87% of 2019 levels

As of March, the JODI Oil Database has January gasoline and diesel demand for only 52 of 117 countries and December demand for an additional 13 countries, collectively representing ~80% of global demand. Gasoline and diesel demand in this subset returned to 39.3 mb/d in January/December, down ~13% from 45.7 mb/d in 2019, but up ~19% from 33.1 mb/d in April 2020.

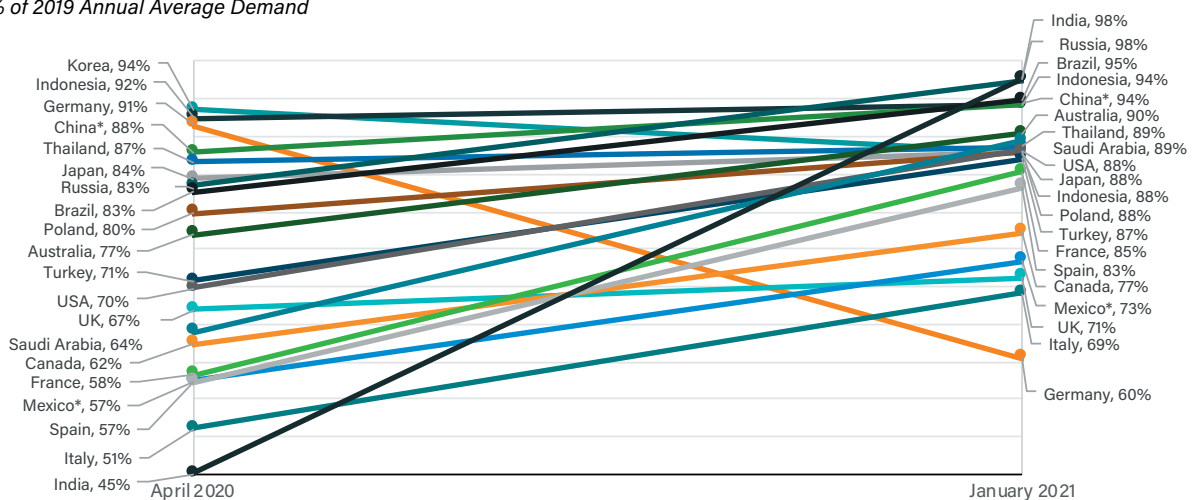
Demand patterns have been uneven and asynchronous. April 2020 saw the lowest aggregate monthly demand but not all countries bottomed then. Among the top 20 gasoline and diesel consuming countries, India has made notable recovery since last April from 1.1 mb/d in April 2020 to 2.4 mb/d in January 2021. However, demand has plummeted to a new COVID low in Germany and remains near April lows in the UK.

Largest 20 Demand Markets: Combined Motor Gasoline and Diesel Demand



Largest 20 Demand Markets: Combined Motor Gasoline & Diesel Demand April 2020 vs. January 2021

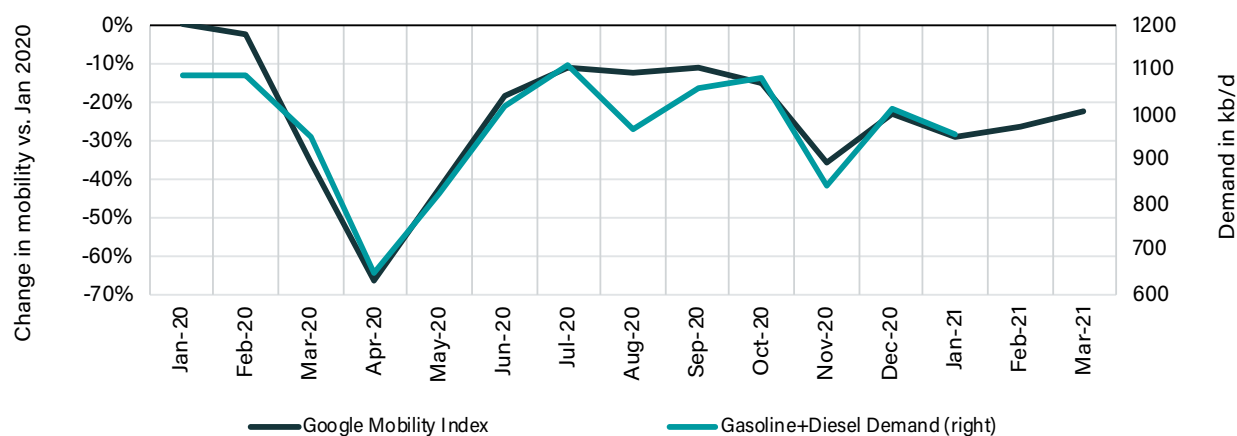
% of 2019 Annual Average Demand



Mobility Index implies further improvement in transportation fuels demand

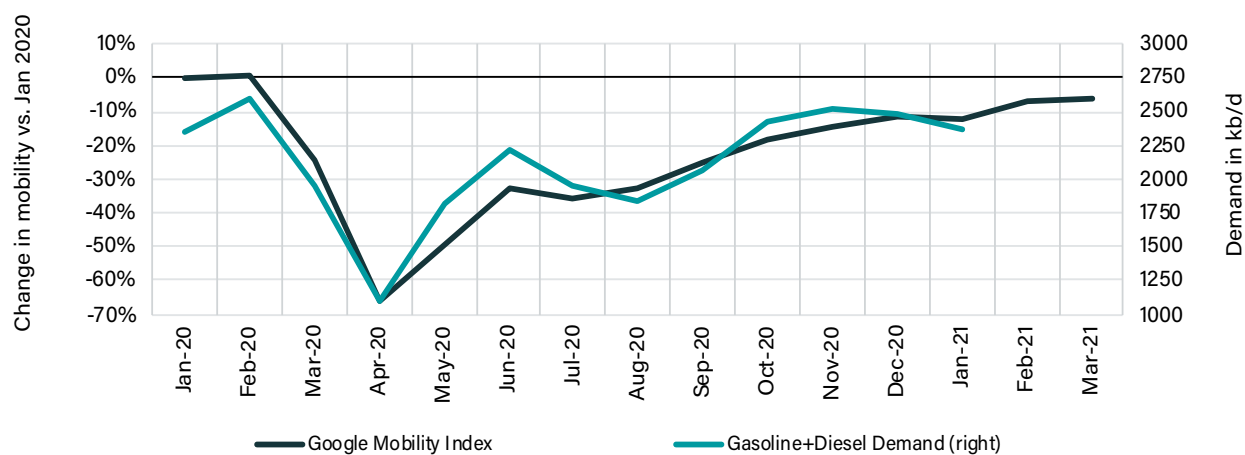
Google's Community Mobility Reports are based on data from users who have enabled location history on a Google Map app. The index compares the daily number of users at different commercial locations to January 2020 baseline data. It is not a comprehensive reflection of all gasoline and diesel demand but captures the trend of a subset. Notably, the report also lacks data for China, the world's second largest oil consuming country. However, for many countries where data exist, the index has correlated very strongly with JODI gasoline and diesel demand (see charts below).

France: Google Mobility Index & Gasoline and Diesel Demand



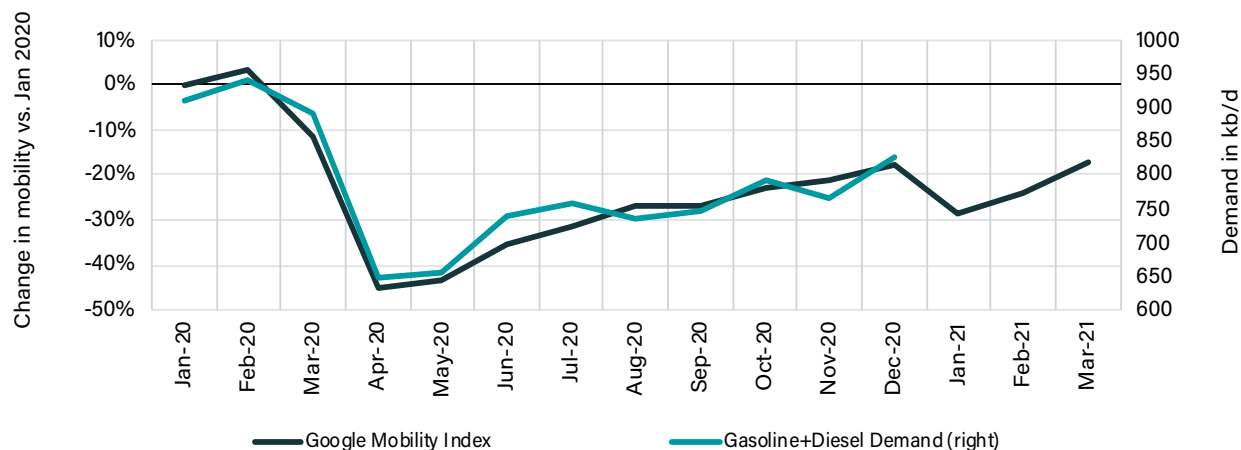
Source: IEF, JODI Oil Database, Google Community Mobility Report

India: Google Mobility Index & Gasoline and Diesel Demand



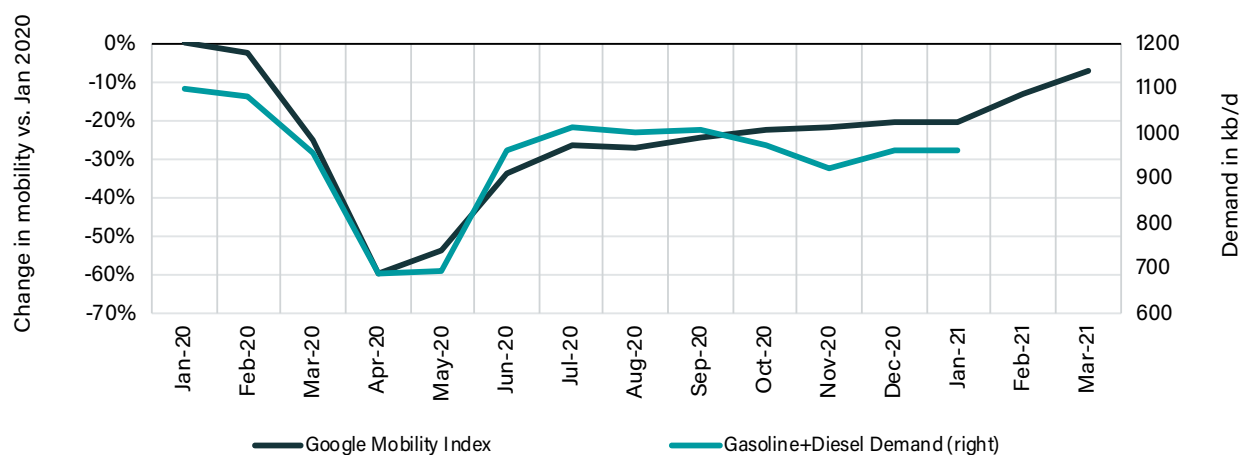
Source: IEF, JODI Oil Database, Google Community Mobility Report

Mexico: Google Mobility Index & Gasoline and Diesel Demand



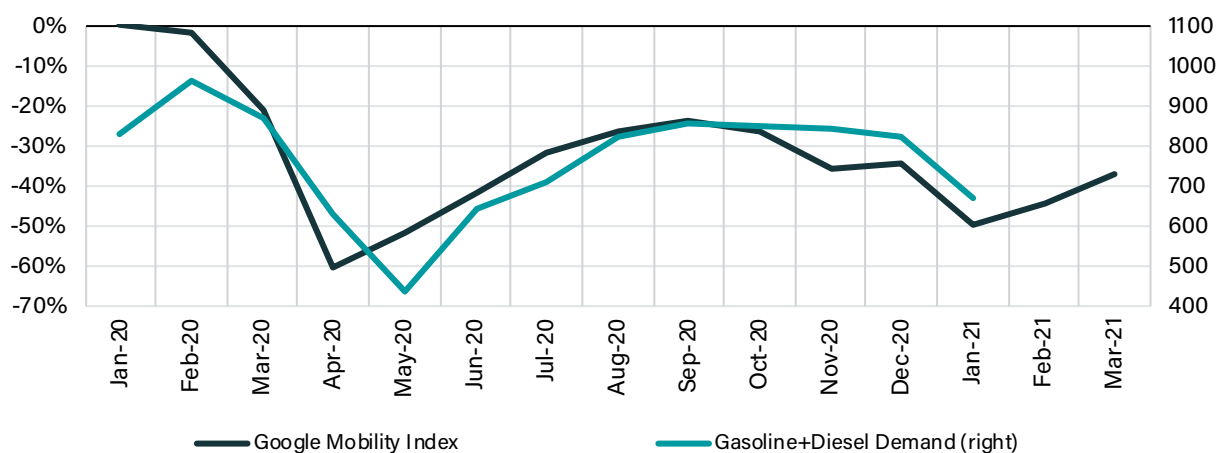
Source: IEF, JODI Oil Database, Google Community Mobility Report

Saudi Arabia: Google Mobility Index & Gasoline and Diesel Demand



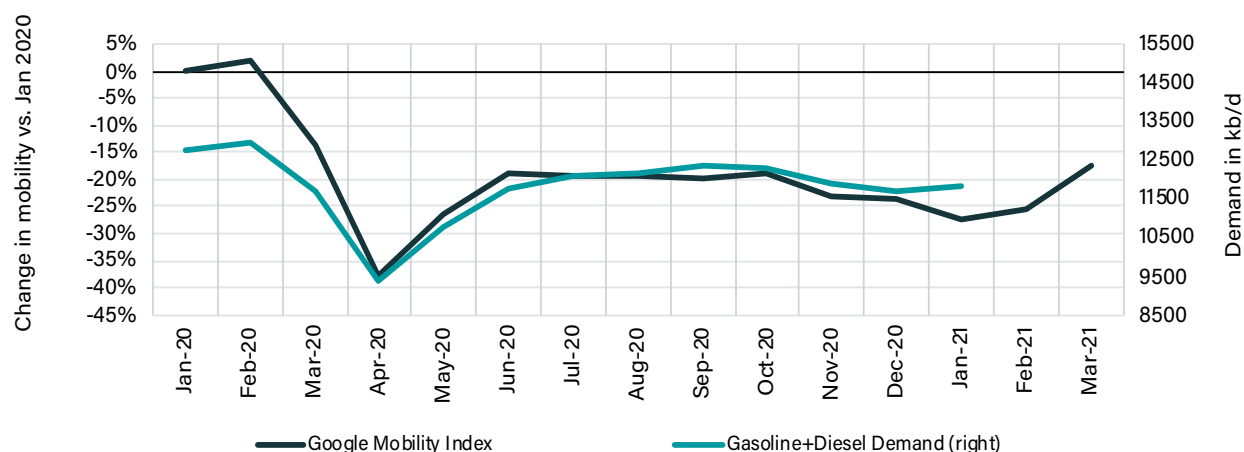
Source: IEF, JODI Oil Database, Google Community Mobility Report

United Kingdom: Google Mobility Index & Gasoline and Diesel Demand



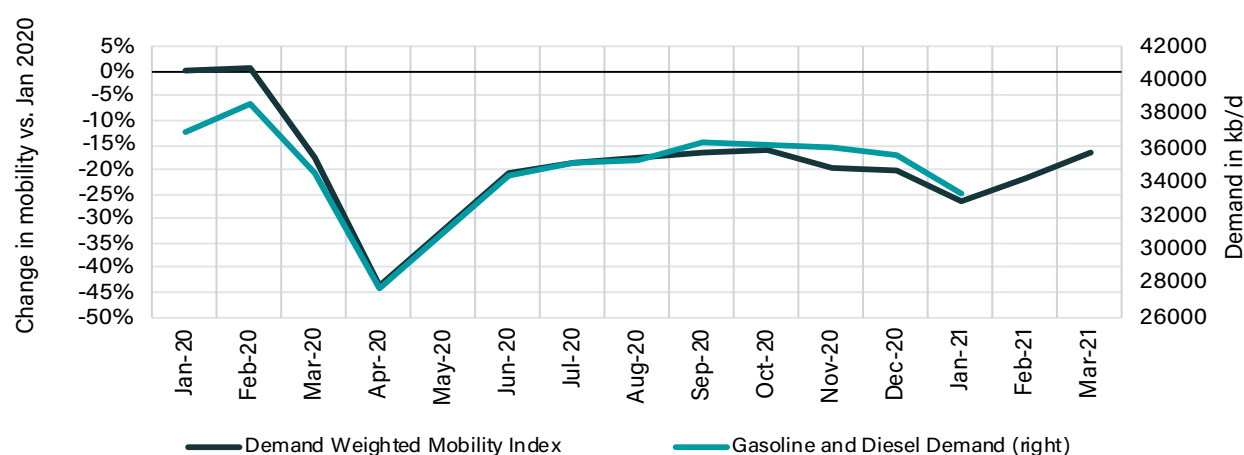
ce: IEF, JODI Oil Database, Google Community Mobility Report

USA: Google Mobility Index & Gasoline and Diesel Demand



Source: IEF, JODI Oil Database, Google Community Mobility Report

Gasoline and Diesel Demand & Demand Weighted Mobility for 57 JODI Reporting Countries



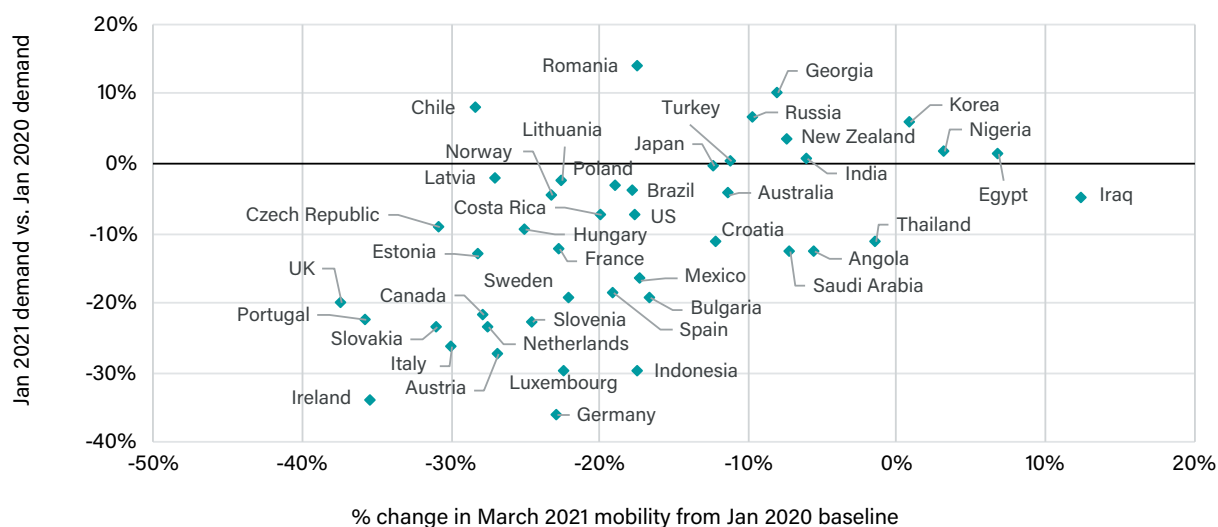
Source: IEF, JODI Oil Database, Google Community Mobility Report

57 countries have both JODI product-level demand data and Google Mobility Index data. The strong correlation between gasoline/diesel demand and mobility in these 57 countries implies demand increased by ~1.2 mb/d m/m in February and 1.1 mb/d m/m in March, rising from ~87% of pre-COVID levels in January to 93% in March. More than 35% of the ~2.3 mb/d volume gains were driven by the US and India which added 420 kb/d and 380 kb/d, respectively.

The IEF calculated a demand weighted average mobility index for these 57 countries by weighing each countries' mobility by its share of the aggregate 2019 gasoline and diesel demand. The weighted average mobility index reached -16.97% in March 2021 - the third highest level in a year and only lower than September and October 2020 (-16.4% and -16.1%, respectively).

The country-level mobility index highlights the unevenness of recovery. Mobility in many European countries remain 20-40% below the January 2020 baseline while several countries across the Middle East, Africa, and Asia range from 10% below to 10% above baseline levels.

Google Mobility Index & Gasoline and Diesel Demand



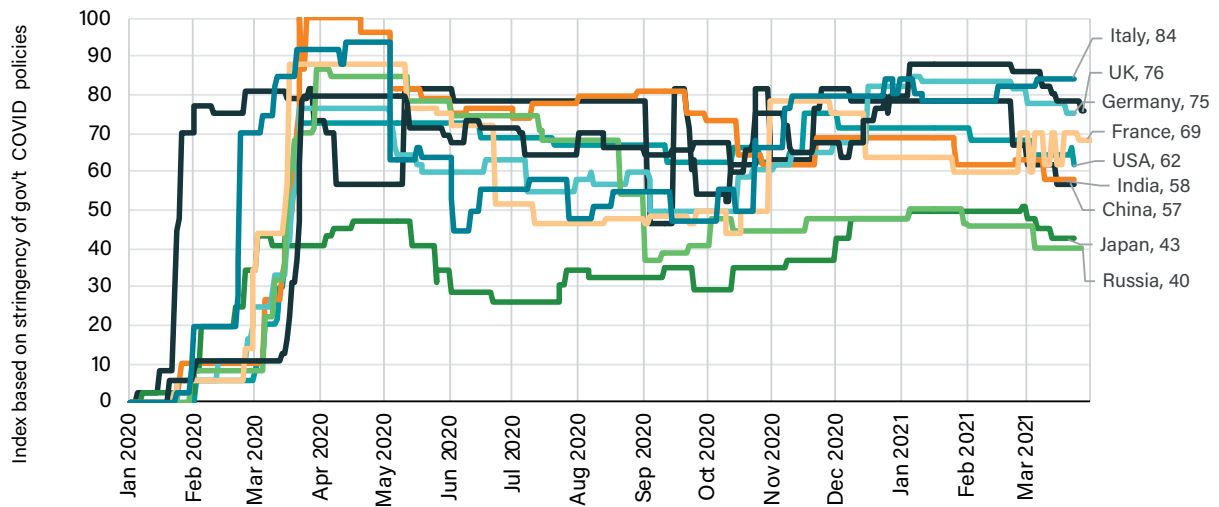
Source: IEF, JODI oil database, Google Community Mobility Index

For countries excluded in Google's Mobility Report, e.g. China, Oxford's COVID-19 Government Response Tracker provides a "stringency" index based on containment and closure policies and public information campaigns. A higher level of stringency correlates with lower mobility and therefore lower transportation fuel demand.

The tracker fell in China during March 2021, below summer 2020 levels, which indicate a pick-up in mobility and therefore in transportation fuels demand. This implies a serious pick-up in transportation fuels demand, while passenger traffic declined 45% last year, according to the Statistical Communique released by the National Bureau of Statistics of China early February.

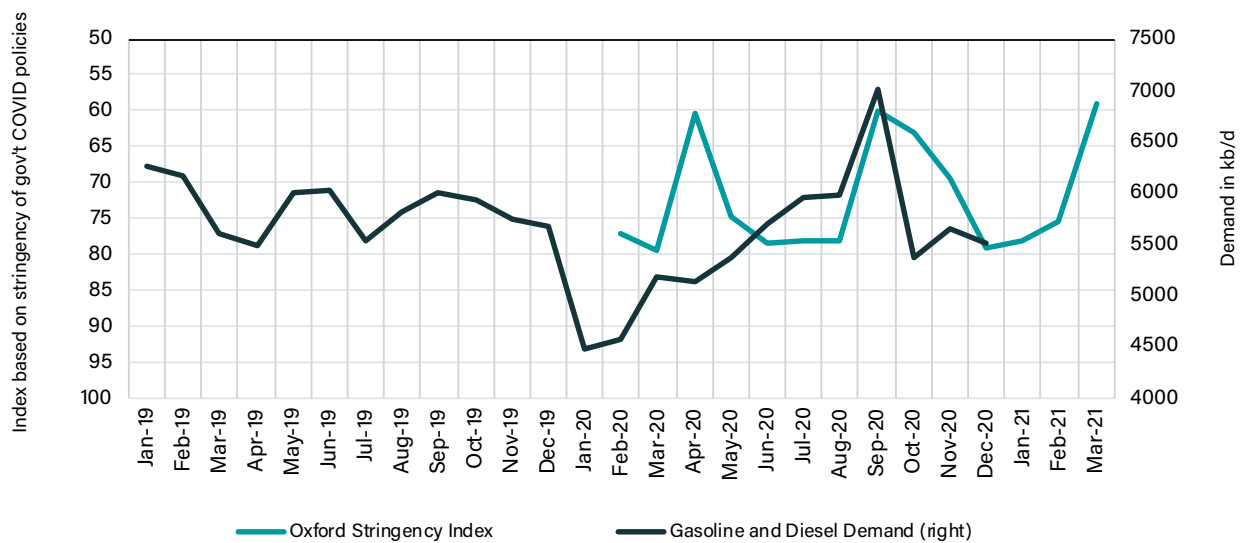
Analysis of these statistics also shows that CO2 emissions in China increased 1.5% in 2020 pointing at a surge in heavy industry consumption, particularly of diesel. With industrial diesel demand having now likely peaked as the Chinese economy shifts, most diesel demand growth is likely to come from transport, particularly freight.

Select Major Demand Markets: Oxford's Government Closure & Containment Stringency Index



Source: IEF, Oxford Blavatnik School of Government COVID-19 Government Response Tracker

China: Gasoline and Diesel Demand and Lockdown Policy Stringency



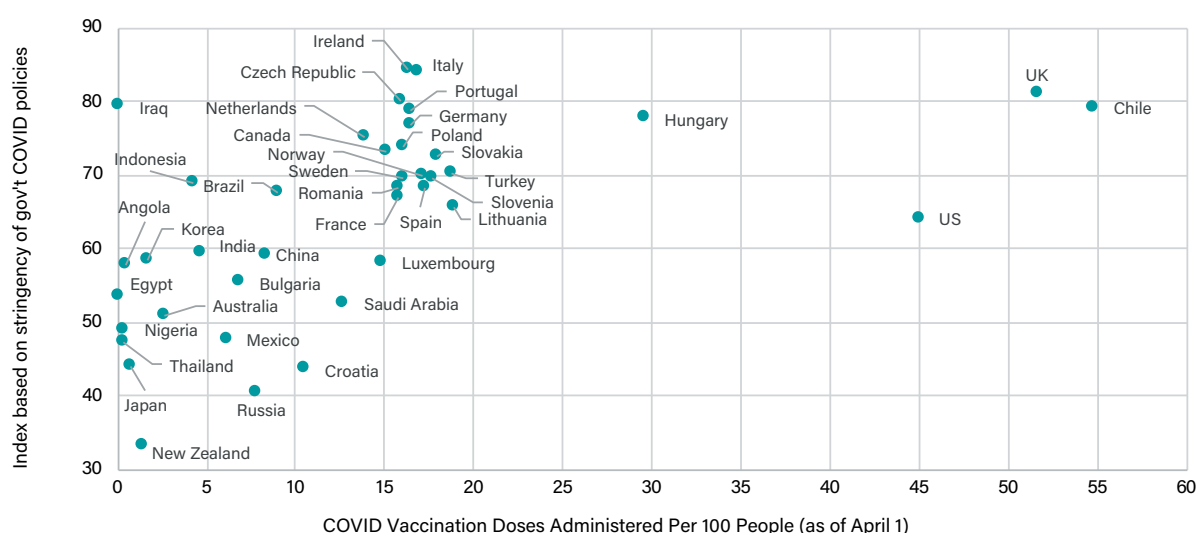
Source: IEF, JODI Oil Database, Oxford Government Response Tracker

COVID vaccination ramp-up is a weaker indicator of mobility and transportation fuels

As of April 10, 2021, only two countries in the world exceeded 90 COVID-19 vaccine doses administered per 100 people – Israel and the UAE, with Chile, the UK, Bahrain and the United States in the 40-60 doses per 100 people. Other countries lag due to larger populations and/or limited vaccine availability. Estimates of COVID's herd immunity threshold vary, but most experts expect 70-90% of the population will need to be immune through infection or vaccination.

Vaccinations began in many regions in mid-December or January, but several populated countries remain below 20 vaccination doses administered per 100 people (the rate of fully vaccinated individuals is likely lower as several regimes require multiple doses). The other serious concern is the multiplication of stronger variants. Some countries with the highest vaccination doses administered continue to be under strict restrictions (ie. UK and Chile). Travel corridors may continue to be considered but will remain flexible and reversible.

COVID Vaccination Doses Per 100 People & Oxford Stringency Index



Source: IEF, Oxford Blavatnik School of Government COVID-19 Government Response Tracker, OurWorldinData

Focus on Gasoline: Demand recovery driven by Asian rebound, while North America lags

Gasoline demand in 2H20 exceeded 2H19 levels in several key Asian markets including China, India, South Korea, Thailand, and Chinese Taipei. However, North American demand lagged notably with US, Canada, and Mexico's gasoline consumption down 12-25% compared to 2H19.

Largest 20 Demand Markets: Months Where Gasoline Demand Exceeded 2019 Average

	Jan '20	Feb '20	Mar '20	Apr '20	May '20	Jun '20	Jul '20	Aug '20	Sep '20	Oct '20	Nov '20	Dec '20	Jan '21	# of Months >2019 Avg	2H20 vs 2H19
USA														0	88%
China														4	105%
India														5	101%
Russia														4	99%
Japan														2	95%
Saudi Arabia														2	89%
Brazil														4	96%
Korea														6	100%
Canada														0	81%
Germany														1	93%
Mexico														0	75%
Indonesia														5	89%
France														4	94%
United Kingdom														1	83%
Thailand														6	105%
Spain														2	88%
Italy														7	96%
Australia														2	89%
Chinese Taipei														7	104%
Iraq														2	90%

Source: IEF, JODI Oil Database

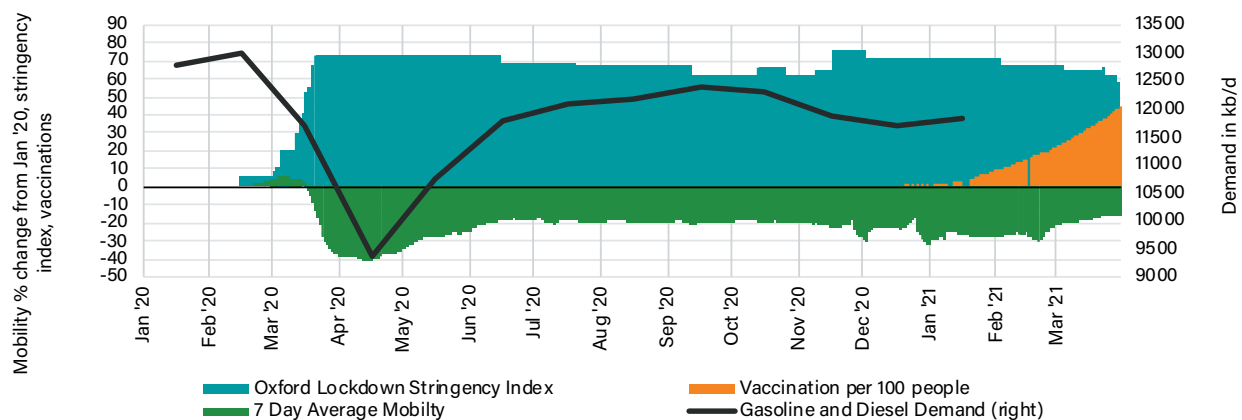
Prior to COVID, gasoline demand was slowly declining in Japan, UK, Italy, Australia and Scandinavia (down a total of 3% in 2017-2019) but was either stagnant or growing in the rest of the OECD. OECD gasoline demand grew a net 1% in 2019 vs. 2017. Gasoline grew by nearly 2% across developing countries over the same period. In recent months, gasoline demand has been 8-10% above pre-COVID levels in India and China despite continued localized COVID restrictions and higher domestic fuel prices.

Top 10 oil consuming countries: demand, mobility & stringency trends

United States:

JODI oil database shows US gasoline and diesel demand reached ~89% of 1Q19 levels in January 2021 when mobility averaged 27% below January 2020 baseline (the lowest mobility since May 2020). However, mobility has increased steadily since the beginning of the year to just 12% below the baseline at the end of March. Mobility increased as the stringency index eased and COVID vaccinations ramped up. If Google's mobility index continues to be an indicator of gasoline and diesel use, demand likely increased in March to nearly ~91% of 2019 levels from ~88% in January.

United States: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate

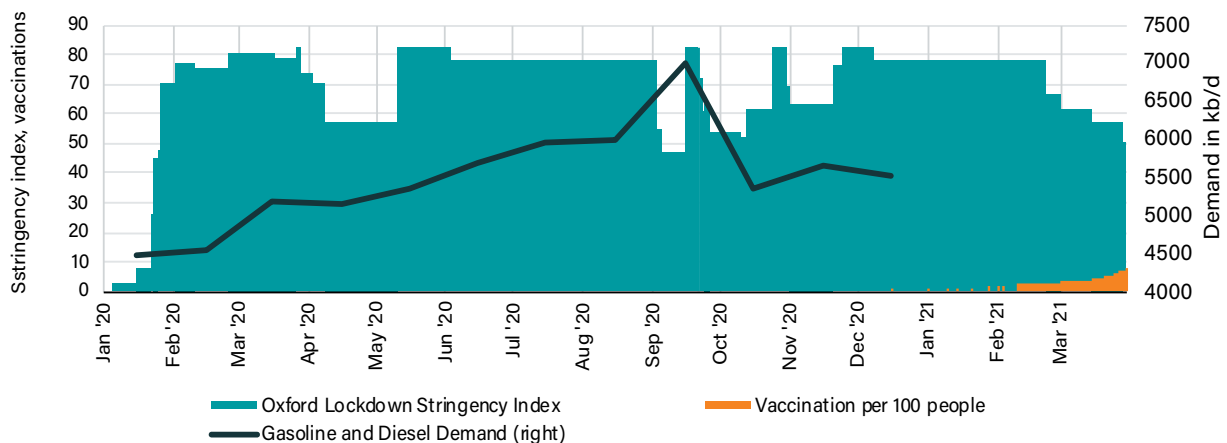


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

China:

JODI only has data for China through December 2020, however, Google Community Mobility Report does not include China. JODI data for December shows gasoline and diesel demand was 94% of 2019 average levels after being above the average in July-September. Demand bottomed in China in January 2020 and gasoline and diesel fell to 77% of 2019's average. Interestingly, Oxford's stringency index for China fell over 1Q21 to ~57 in March vs. 82 in early December, implying a pickup in demand.

China: Demand, Lockdown Policy Stringency & COVID Vaccination Rate

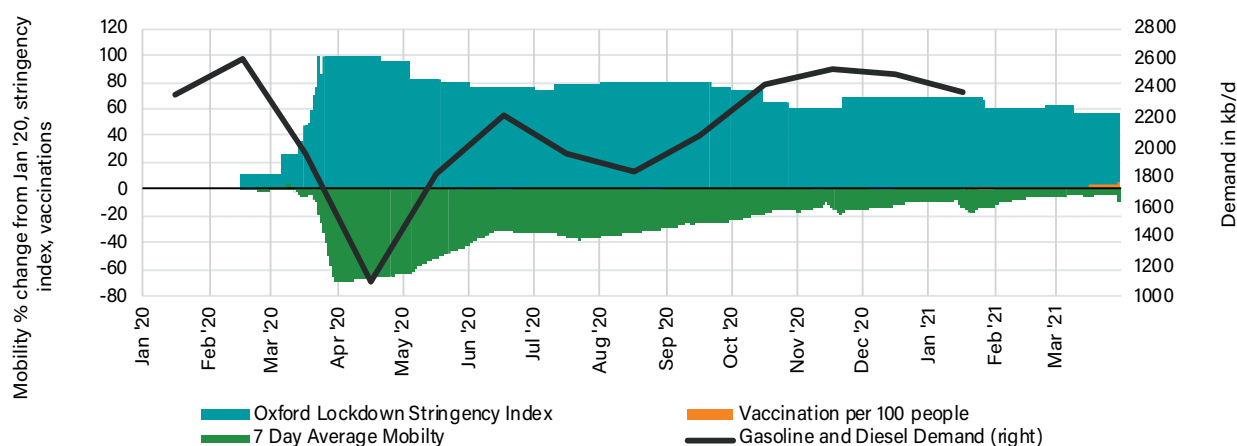


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, OurWorldinData

India:

January 2021's gasoline and diesel demand reached ~97% of 2019 levels. Gasoline alone surpassed 2019 levels in January by 2%. Of the top 20 consumers, India has experienced the strongest rebound on a percentage basis after gasoline and diesel demand plummeted in April 2020 to just 45% of 2019 levels. Between January 2021 and March, Google's mobility index has increased from -13% to -5%, implying demand has continued to climb higher over 1Q21. The vaccination rollout remains slow with 4.7 inoculations reported per 100 people (as of March 31).

India: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate

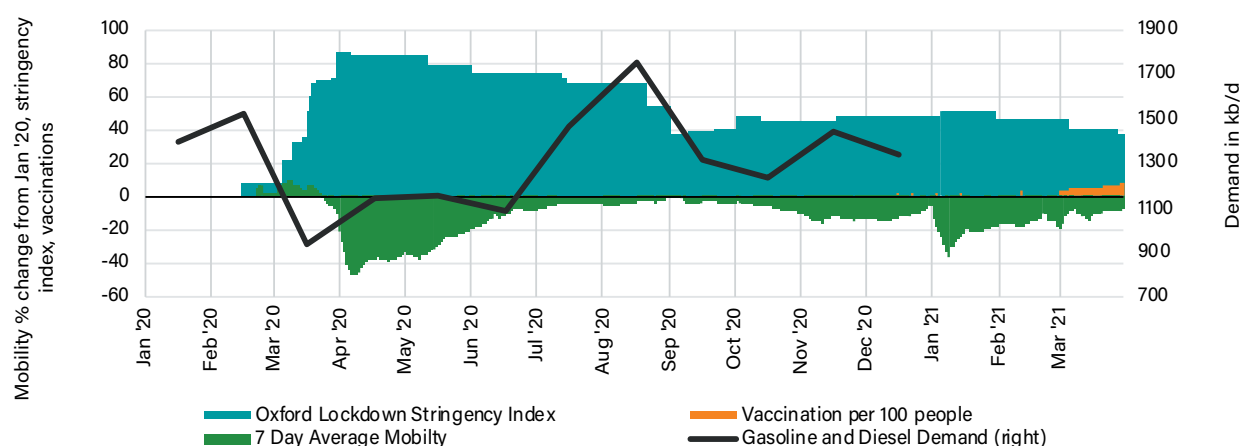


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

Russia:

JODI Oil Database only has demand data for Russia through December 2020 when gasoline and diesel demand was 98% of 2019 average and 7% higher than December 2019 levels. Mobility slowed significantly in January 2021 to 24% below January 2020 levels (from -11% in December), but increased to -10% in March. Russia's policy stringency, estimated by Oxford, is one of the lowest among major consumers at 41 (compared to >60 for most top 20 consuming countries).

Russia: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate

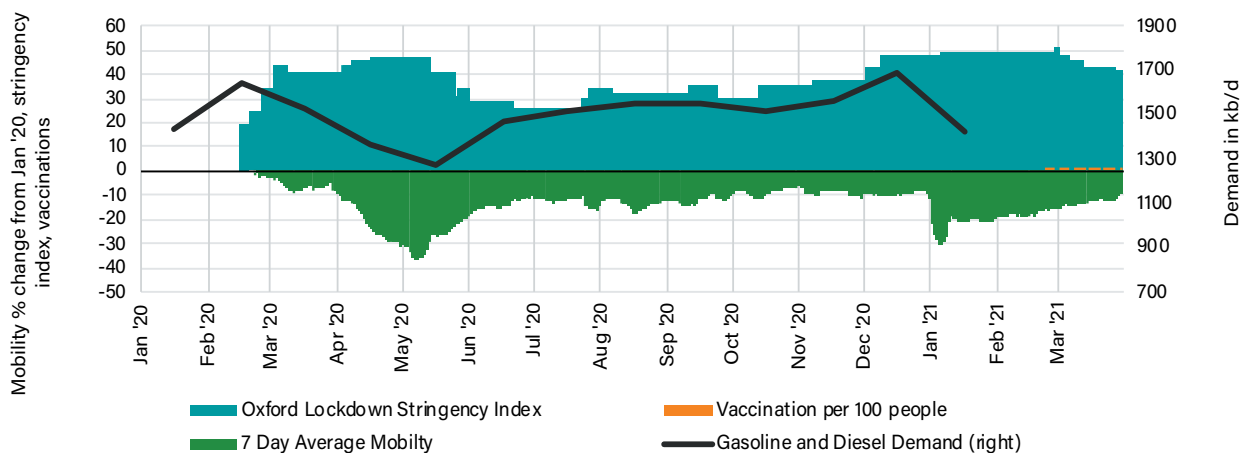


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

Japan:

January 2021 mobility was its lowest level since May 2020 at 22% below January 2020 levels. January gasoline and diesel demand measured 88% of 2019 levels with gasoline alone at only 82% of 2019's average. While mobility has increased since January, it has remained below 4Q20 levels through all 1Q21. Lockdown stringency policies have increased in recent months from <30 in the summer 2020 to its highest ever level of ~50. COVID vaccinations are at only 0.79 per 100 people (as of March 31).

Japan: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate

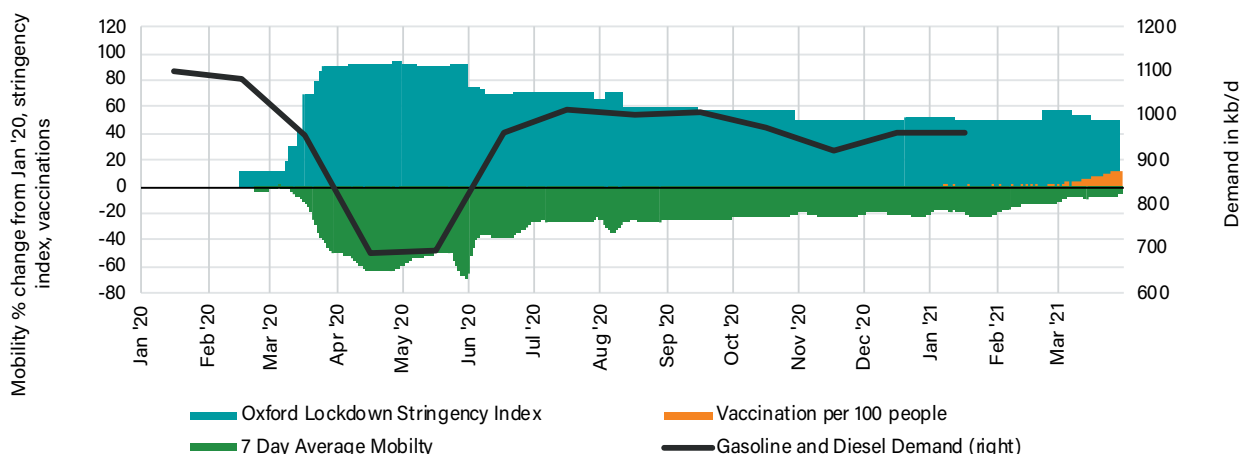


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

Saudi Arabia:

January gasoline and diesel demand recovered to ~89% of 2019 levels. Mobility has increased significantly over 1Q21 from -20% in January to -7% in March, implying continued increase in transportation demand. Mobility increased in February and March despite an increase in Oxford's stringency index. If mobility continues to be a good predictor of gasoline and diesel demand in Saudi Arabia, March readings imply demand returned to 2019 average levels.

Saudi Arabia: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate

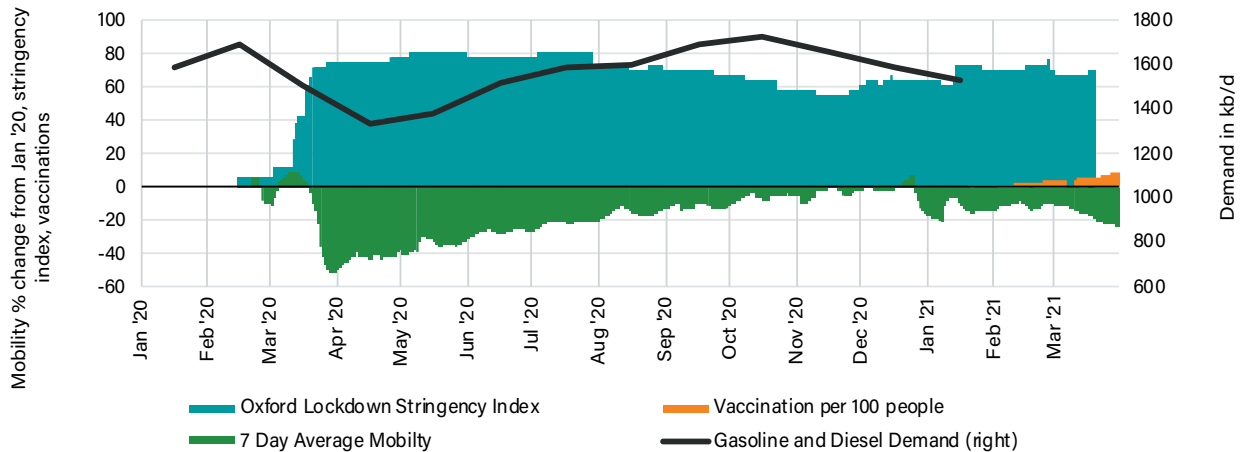


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

Brazil:

Gasoline and diesel demand returned to 95% of 2019 levels in January after surpassing the 2019 average in September through November. Mobility slowed significantly during 1Q21, dropping from -3% in 4Q20 to -18% by March. March mobility was at its lowest level since July. COVID vaccination rates reached ~9 per 100 people (as of March 31).

Brazil: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate

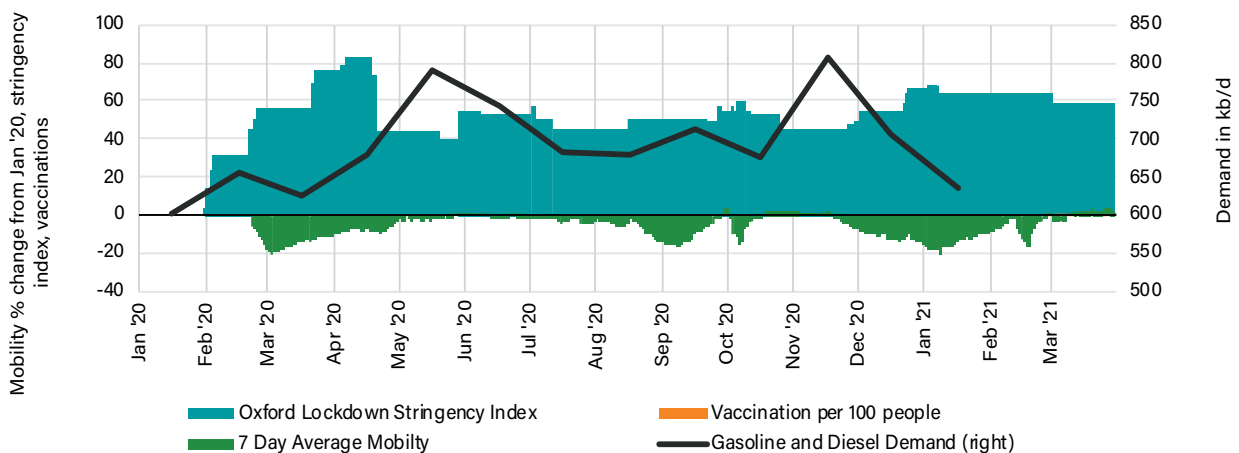


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

Korea:

January 2021 gasoline and diesel demand fell to its lowest level since March 2020 to 88% of 2019's average level. Google's Mobility Index for January 2021 was also at its lowest level since March at 14% below January 2020 baseline. Since January, mobility has increased to 1% above the January 2020 baseline. Mobility was at a similar level in May and June 2020 when gasoline and diesel demand were 3-10% above the 2019 average.

Korea: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate

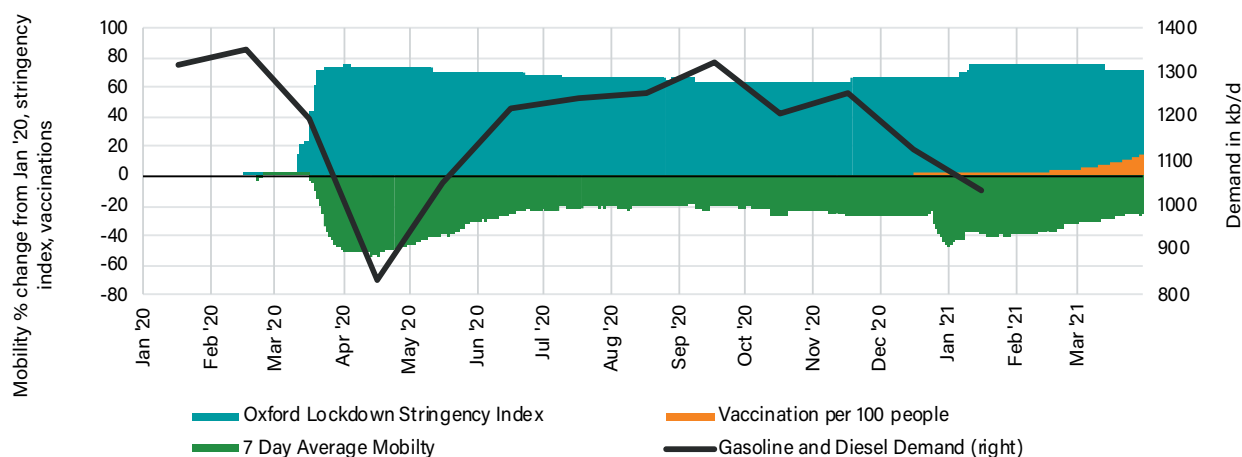


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

Canada:

January 2021 mobility dropped to its lowest level since April 2020. Gasoline and diesel demand fell to just 77% of 2019 levels (with gasoline falling to 72% of 2019 levels). The stringency index rose to its highest level yet in January before rising further in February. Mobility increased slightly in February and March but remained below levels seen in June through November 2020. The decline in mobility has occurred as Oxford's stringency index has increased from low/mid-60s to mid-70s.

Canada: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate

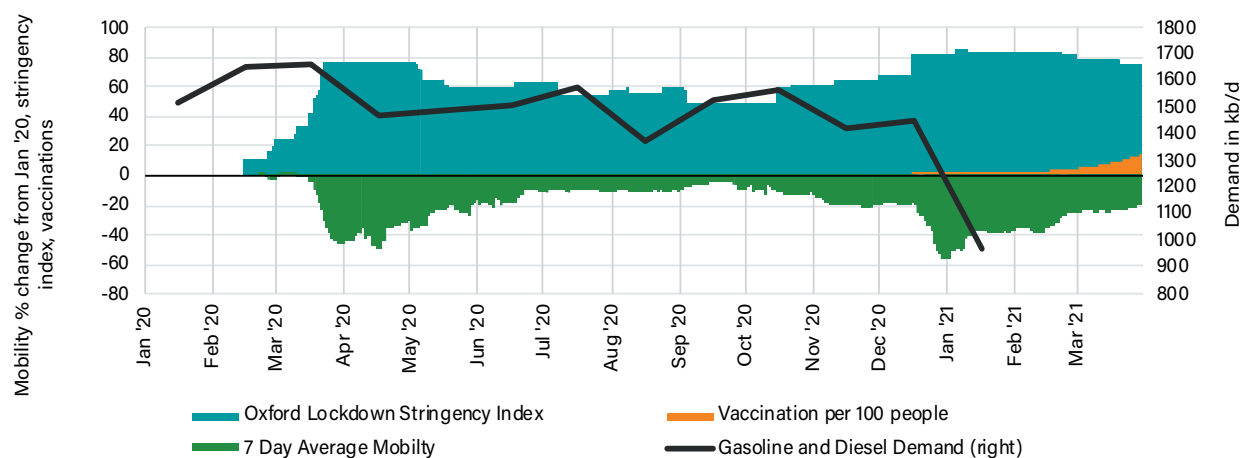


Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

Germany:

January JODI data showed gasoline and diesel demand plummeted in Germany to 60% of 2019 levels after averaging 92% in 4Q20. The drop in demand corresponds with the highest stringency index reading and lowest mobility for the country since the beginning of the pandemic. The stringency index has eased since January but remains above April 2020 levels, implying continued significant constraints on demand. Vaccination rates per 100 people more than doubled between February and March from 7.4 to 16.4.

Germany: Demand, Mobility, Lockdown Policy Stringency & COVID Vaccination Rate



Source: IEF, JODI Oil Database, Oxford Government Response Tracker, Google Community Mobility Report, OurWorldinData

Conclusion: Demand recovery remains uneven and fast-changing, but non-traditional metrics improve data transparency and can help make informed assumptions about demand trajectory

The road to full recovery remains tenuous and ever-changing, but non-traditional, real-time demand metrics can help improve data transparency. Google's Mobility Index and Oxford's Stringency Index synchronize well with historical gasoline and diesel demand and can aid in country-level modeling, as demonstrated above. Better quality and more transparent data in the energy sector are imperative to improve domestic policies, production policies and consequently investment decisions. While there may be temporary setbacks or stagnation in demand's near-term recovery, particularly given renewed lockdowns, increased COVID vaccination rates are likely to help ease hospitalizations and loosen containment policies. The IEF will continue monitoring these different metrics during the remainder of 2021, particularly with Ramadan and summer vacation travel patterns, to track the recovery of these missing 5.2 mb/d (2.8 mb/d for gasoline and diesel and 2.4 mb/d for jet fuel).

Summary Table of Gasoline and Diesel Demand, Mobility, COVID Lockdown Policy Stringency, and Vaccinations

	2019		2020		2021								
Countries in JODI Oil	2019 Total Product Demand (kb/d)	2019 Gasoline and Diesel Demand (kb/d)	2020 Gasoline and Diesel Demand Low (kb/d)	2020 Gasoline and Diesel Demand Low	Jan 2021 (Dec 2020)* Gasoline & Diesel (kb/d)	Feb 2021 Implied Gasoline and Diesel Demand (kb/d)	Mar 2021 Implied Gasoline and Diesel Demand (kb/d)	Jan '21 Mobility	March '21 Mobility	Max Stringency	Jan '21 Stringency	March '21 Stringency	COVID Vaccination Per 100 People
Albania	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	90	59	60	4.2
Algeria	N/A	N/A	185	Apr 2020	264	N/A	N/A	N/A	N/A	92	72	72	0.2
Angola	88	65	16	Jan 2020	14	65	75	-12	-5	91	65	58	0.4
Argentina	627	385	218	Apr 2020	N/A	N/A	N/A	-29	-16	100	79	73	8.6
Armenia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Australia	1088	813	625	Apr 2020	735	800	825	-21	-11	82	61	48	2.6
Austria	278	204	155	Dec 2020	135	160	170	-46	-27	82	82	74	17.9
Azerbaijan	106	59	30	Apr 2020	56	N/A	N/A	N/A	N/A	96	83	68	5.0
Bahrain	33	26	9	Oct 2020	15	17	20	-17	-13	79	52	56	45.0
Bangladesh	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	25	94	80	81	3.3
Barbados	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-40	-46	89	62	71	22.2
Belarus	178	89	74	Mar 2020	81	N/A	N/A	-23	-12	28	28	28	0.7
Belgium	660	271	195	Aug 2020	266	270	270	-31	-20	81	60	60	15.6
Belize	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-28	-16	85	72	73	5.1
Bermuda	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	96	57	55	60.7
Bolivia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-27	-17	96	33	21	2.5
Brazil	2385	1614	1335	Apr 2020	1530	1575	1500	-14	-18	81	68	68	9.0
Brunei Darussalam	16	12	10	May 2020	11	N/A	N/A	N/A	N/A	58	35	41	N/A
Bulgaria	253	62	36	Apr 2020	45	60	60	-28	-16	73	54	55	6.8
Canada	2385	1340	835	Apr 2020	1035	1050	1100	-40	-28	75	73	73	15.1
Chile	367	259	187	Apr 2020	289	285	280	-32	-28	88	79	79	54.7
China	13743	5850	4486	Jan 2020	5518	N/A	N/A	N/A	N/A	82	78	59	8.3
Chinese Taipei	975	274	247	Jan 2020	263	N/A	N/A	-10	-8	31	21	25	N/A
Colombia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-32	-10	91	77	82	4.2
Costa Rica	50	42	22	Apr 2020	42	45	50	-28	-20	81	64	56	7.6
Croatia	71	52	36	Apr 2020	36	45	50	-34	-12	96	49	44	10.5
Cuba	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	72	80	N/A
Cyprus	54	25	14	Apr 2020	22	N/A	N/A	N/A	N/A	94	81	74	14.8
Czech Republic	221	141	107	Apr 2020	109	113	110	-34	-31	82	75	80	15.9
Denmark	165	119	103	Nov 2020	92	100	105	-38	-23	72	68	63	19.2
Dominican Republic	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-34	-19	100	70	70	8.4
Ecuador	272	169	N/A	N/A	N/A	N/A	N/A	-20	-10	94	70	61	1.4

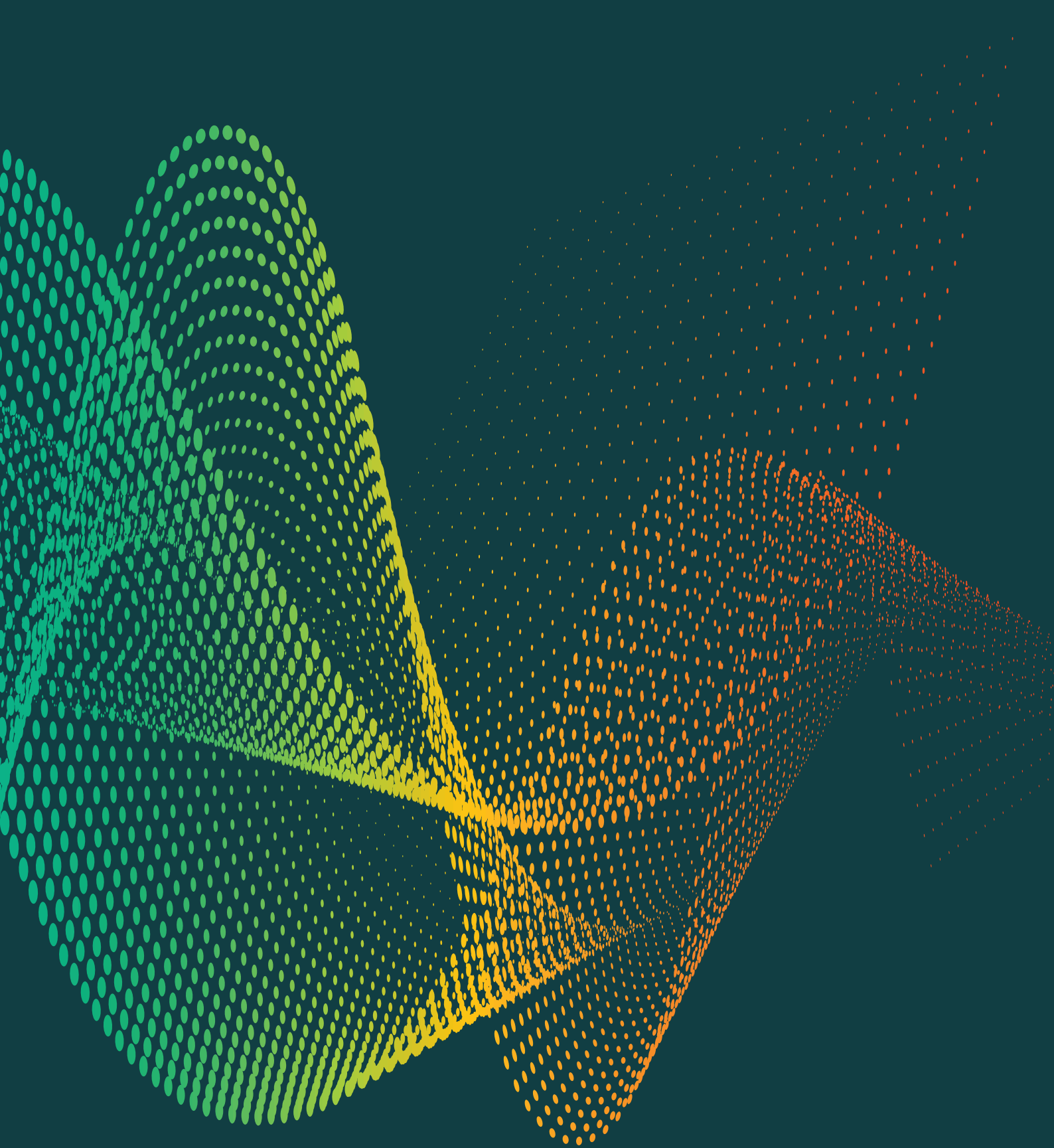
	2019		2020		2021								
Egypt (Arab Rep.)	694	438	337	Jun 2020	423	N/A	N/A	-6	7	84	61	54	0.0
El Salvador	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-16	-7	100	47	44	1.5
Equatorial Guinea	5	4	3	Apr 2020	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.9
Estonia	27	22	20	May 2020	20	22	21	-24	-28	78	49	50	19.7
Eswatini	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	90	71	69	N/A
Finland	183	120	109	Aug 2020	113	114	112	-28	-27	68	52	52	17.7
France	1696	1118	652	Apr 2020	955	975	1000	-29	-23	88	63	67	15.7
Gabon	12	10	4	Apr 2020	10	N/A	N/A	-11	-16	84	66	66	N/A
Gambia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	83	45	43	N/A
Georgia	30	24	15	Apr 2020	25	25	26	-15	-8	100	83	64	N/A
Germany	2491	1603	1377	Aug 2020	968	1050	1100	-40	-23	85	84	77	16.4
Greece	307	150	118	Jun 2020	117	125	125	-36	-34	89	82	88	16.3
Grenada	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.7
Guatemala	106	78	N/A	N/A	N/A	N/A	N/A	-23	-17	96	55	53	0.6
Guyana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	87	55	60	4.2
Haiti	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-21	-19	94	33	33	N/A
Honduras	38	31	18	Apr 2020	N/A	60	70	-28	-18	100	87	82	0.4
Hong Kong China	419	146	84	Dec 2020	87	N/A	N/A	-13	-4	71	71	71	6.7
Hungary	182	113	89	Apr 2020	85	95	95	-27	-25	80	72	78	29.5
Iceland	15	10	2	Apr 2020	7	N/A	N/A	N/A	N/A	66	47	46	21.4
India	4803	2427	1090	Apr 2020	2370	2600	2750	-13	-6	100	68	62	4.7
Indonesia	1601	1094	655	Jul 2020	1031	1000	1100	-24	-17	80	64	69	4.3
Iran (Islamic Rep.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80	77	80	0.2
Iraq	690	299	168	Apr 2020	278	290	300	13	12	96	51	79	N/A
Ireland	159	101	58	Apr 2020	63	75	80	-49	-35	91	86	84	16.3
Italy	1257	752	385	Apr 2020	521	650	630	-36	-30	94	80	84	16.9
Jamaica	32	14	9	Apr 2020	N/A	13	13	-23	-27	87	71	72	1.1
Japan	3793	1624	1276	May 2020	1429	1450	1500	-22	-12	51	49	44	0.8
Kazakhstan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-16	-3	92	69	59	0.6
Korea	2792	725	601	Jan 2020	637	700	760	-14	1	82	65	58	1.7
Kuwait	279	116	N/A	N/A	N/A	N/A	N/A	-18	-29	100	65	75	14.2
Latvia	38	31	25	Jan 2020	24	23	24	-37	-27	69	58	56	7.4
Libya	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	34	100	83	67	N/A
Lithuania	65	42	35	Jan 2020	34	37	40	-40	-23	87	72	66	18.9
Luxembourg	64	50	25	Apr 2020	34	37	40	-35	-22	81	65	58	14.8
The former Yugoslav Rep. of Macedonia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-34	-21	80	73	72	2.0
Malaysia	59	18	9	Sep 2020	14	13	13	-22	-24	87	53	66	43.4
Malta	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-16	-52	97	19	70	0.3

	2019		2020		2021								
Mauritius	1824	1126	646	Apr 2020	840	775	800	-29	-17	82	72	48	6.1
Mexico	21	17	13	Apr 2020	19	17	16	-27	-24	87	57	70	1.0
Moldova	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-9	-12	94	77	77	21.7
Morocco	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-26	-61	86	74	78	0.7
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1	16	96	59	19	5.5
Nepal	966	300	239	Apr 2020	227	245	260	-40	-28	82	80	75	13.9
Netherlands	181	123	48	Apr 2020	132	125	125	-15	-7	96	22	33	1.4
New Zealand	N/A	N/A	13	Feb 2020	N/A	N/A	N/A	-7	-12	24	8	8	N/A
Nicaragua	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8	-11	61	31	34	N/A
Niger	487	448	349	Apr 2020	499	500	505	-8	3	86	58	49	0.4
Nigeria	252	107	90	Apr 2020	91	90	93	-31	-23	80	65	70	17.1
Norway	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-24	-24	100	39	65	3.0
Oman	55	46	19	Apr 2020	40	30	35	-56	-26	94	76	76	8.4
Panama	26	10	N/A	N/A	14	N/A	N/A	13	-3	84	60	56	N/A
Papua New Guinea	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-24	-19	94	55	51	0.6
Paraguay	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-34	-36	96	63	84	2.5
Peru	466	319	124	Apr 2020	N/A	300	330	-33	-28	100	60	72	0.5
Philippines	705	479	382	Apr 2020	422	460	480	-31	-19	83	74	74	16.1
Poland	250	128	70	Apr 2020	93	85	90	-40	-36	88	72	78	16.4
Portugal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1	-2	86	56	60	28.3
Qatar	238	165	116	Apr 2020	164	170	175	-29	-17	87	77	68	15.8
Romania	N/A	1368	932	Mar 2020	1335	1300	1400	-24	-10	87	50	41	7.8
Russian Federation	2268	1077	689	Apr 2020	964	1050	1100	-20	-7	94	51	53	12.7
Saudi Arabia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	10	77	48	51	22.5
Singapore	89	54	38	Apr 2020	35	42	45	-45	-31	87	70	72	18.0
Slovakia	51	43	25	Apr 2020	31	32	35	-46	-25	90	71	69	17.7
Slovenia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-30	-13	88	66	48	0.4
South Africa	1308	768	440	Apr 2020	639	675	700	-32	-19	85	73	68	17.2
Spain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	92	26	22	N/A
Sudan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	69	63	4.4
Suriname	323	185	156	Jan 2020	126	155	165	-32	-22	69	69	69	16.0
Sweden	221	167	131	Aug 2020	117	140	150	-33	-18	73	60	60	16.5
Switzerland	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	87	53	28	N/A
Syria (Arab Rep.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18	-9	67	41	31	N/A
Tajikistan	1165	627	543	Apr 2020	556	620	650	-21	-1	77	59	47	0.3
Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.4
Trinidad/Tobago	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-22	-12	91	69	65	0.1
Tunisia	96	57	28	Apr 2020	N/A	N/A	N/A	N/A	N/A	91	73	68	0.5

	2019		2020		2021								
Turkey	1026	532	376	Apr 2020	463	525	600	-34	-11	80	72	70	18.8
Ukraine	228	152	116	Jan 2020	154	165	170	-28	-14	89	60	60	0.6
United Arab Emirates	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18	-11	90	58	54	84.0
United Kingdom	1598	936	434	May 2020	667	650	725	-50	-37	88	87	81	51.6
United States of America	20540	13425	9365	Apr 2020	11830	12000	12250	-27	-18	75	72	64	44.9
Uruguay	40	31	N/A	N/A	N/A	N/A	N/A	-29	-16	87	67	78	19.4
Venezuela	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-27	-15	91	87	87	0.1
Vietnam	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3	-5	96	58	63	0.1
Yemen	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	27	58	26	25	N/A

Table 6 data sources: IEA OMR Dec 2020, Table 1; OPEC MOMR Dec 2020, Table 4 - 1, 4 - 2.

Table 6 note: Columns may not sum to total due to rounding.



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